

FORESTRY MANAGEMENT IN SWEDEN

What it is about

Forestry is a strategic sector for Sweden, with around 50% of forests owned by private individuals or families who must comply with national and EU legislation regarding the management of their forests. Swedish best practices for forest management foresee forest replanting after clearing, pre-commercial thinning and commercial thinning. To support forest owners in the process, the Swedish Forest Agency (SFA) advises

owners when to best cut their trees and get higher long term returns from their forest assets. Through the use of satellite-based clear-cut maps, the SFA can promote best practice to the 300,000 private owners. This has resulted in increasing forest and timber reserves whilst at the same time preserved natural forest land increasing its value for ecotourism.



What we found

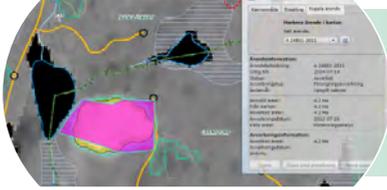
- The SFA service helps detect non-compliance with national and EU law and illegal deforestation.
- Satellite imagery allows to keep the legislation very light by reducing the transaction costs for the government agency and hence the legislative cost on the industry.
- Whilst stimulating the Swedish economy, the use of satellite-based clear-cut maps and promotion of best practices has also led to healthier forests and direct overall environmental gains in Sweden.

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The Satellite Data

Copernicus Sentinel-2 provides free-of-charge frequent wide-swath, high-resolution multispectral imagery with 13 spectral bands over Sweden.



The Service Provider and Primary User

Drawing on Sentinel-2 data, the SFA creates clear-cut maps of the Swedish forestry. Based on the information, it can ensure regular, country-wide monitoring of forests and check compliance of forest owners thanks to satellite imagery.

€9.5m pa 



Primary Beneficiary

Forest owners benefit from complying with replanting practices.

€3.07-6.14m pa 



Secondary Beneficiary

Forest owners also benefit from complying with pre-commercial thinning practices.

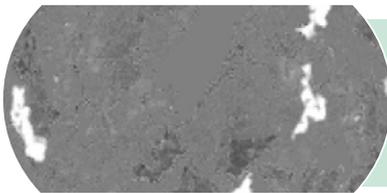
€2.43-4.86m pa 



End Use Beneficiary

Citizens enjoy increased economic activity and preserved forest natural environment.

€1m pa 



Other Beneficiaries

Clear cut maps are made available as open data and are used by other players, both public and private.

€130k pa 

Total benefits: €16.1-21.6m pa

About the project

Through a series of case studies, EARSC aims to gather quantitative evidence that the usage of Copernicus Sentinel data provides an effective and convenient support to various market applications. These studies are undertaken in the frame of the project "Assessing the detailed economic

benefits derived from Copernicus Earth Observation data within selected value chains: a bottom-up study survey", under an assignment from the European Space Agency.

Download the full report from the project website 

<http://earsc.org/sebs>

